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EXAMINER

SHAW, PELING ANDY

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2444

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,240	Applicant(s) DE LA IGLESIA ET AL.	
	Examiner PELING A. SHAW	Art Unit 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/20/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amendment received on 08/20/2008 has been entered into record. Claims 1, 12-13 and 17-20 are amended. Claims 1-20 are currently pending.

Priority

2. This application has claimed priority from provisional application 60528643 filed on 12/10/2003. The filing date is 03/30/2004.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Rowley et al. (US 7277957 B2), hereinafter referred as Rowley.

- a. Regarding claim 1, Rowley disclosed an apparatus (Fig. 1 and Fig. 2) comprising: a network interface module to connect the apparatus to a network (column 3, lines 28-33; Ethernet card as a network tap device); a packet capture module to intercept packets being transmitted on the network (column 3, lines 33-35: a packet capture engine); an object assembly module to reconstruct flows representing objects being transmitted on the network from the intercepted packets (column 4, lines 9-12: packets are sequentially read,

decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); an object classification module to determine a type of content of (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages; multi-packet recompilation module set similar directories for local cache of files) and reconstruct objects from flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); an object store module to store the objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved); and a user interface to enable a user to search objects stored in the object store module (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor).

- b. Regarding claim 2, Rowley disclosed the apparatus of claim 1, wherein the object assembly module comprises a reassembler to assemble the intercepted packets into flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has

been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).

- c. Regarding claim 3, Rowley disclosed the apparatus of claim 2, wherein the object assembly module further comprises a protocol demultiplexer to sort the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
- d. Regarding claim 4, Rowley disclosed the apparatus of claim 3, wherein the object assembly module further comprises a protocol classifier to extract the objects from the sorted assembled flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
- e. Regarding claim 5, Rowley disclosed the apparatus of claim 1, wherein the object classification module determines whether objects are stored in the object store or discarded based on one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).
- f. Regarding claim 6, Rowley disclosed the apparatus of claim 5, wherein the capture rules are user-configurable through the user interface (column 1, line 66-column 2, line 9: selecting a portion of the packets captured by a sniffer

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during a giving time interval; column 3, lines 43-47: selecting captured data during a specified time interval).

- g. Regarding claim 7, Rowley disclosed the apparatus of claim 1, wherein the object classification module determines a location that each object is stored in the object store based on the type of content of each object (column 6, lines 38-48: directory structure based on image file type; column 6, lines 49-65: directory structure for graphics files, text files, audio files and video files).
- h. Regarding claim 9, Rowley disclosed the apparatus of claim 1, wherein the user interface comprises a graphical user interface (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor).

Rowley disclosed all limitations of claims 1-7 and 9. Claims 1-7 and 9 are rejected under 35 U.S.C. 102(e).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley and further in view of Saulpaugh et al. (US 7072967 B1), hereinafter referred as Saulpaugh.

- a. Rowley shows claim 1 as above. Rowley does not show (claim 8) wherein the object classification module determines the type of content of each object using a signature of each object.
- b. Saulpaugh shows (claim 8) wherein the object classification module determines the type of content of each object using a signature of each object (column 82, lines 28-52: an object signature may be included to identify the object's class) in an analogous art for the purpose of efficient construction of message endpoints.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Saulpaugh's functions of identifying object class with an object signature.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to identify an object class with an object signature as per Saulpaugh's teaching in the art of communication reconstruction as per Rowley (column 1, lines 54-65) and Saulpaugh (column 27, lines 10-29)'s teaching.

Together Rowley and Saulpaugh disclosed all limitations of claim 8. Claim 8 is rejected under 35 U.S.C. 103(a).

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley and further in view of Barnett et al. (US 7290048 B1), hereinafter referred as Barnett.

- a. Rowley shows claim 1 as above. Rowley does not show (claim 10) wherein the object store module comprises a content store to store the objects and a tag store to index the objects stored in the object store. However, Rowley does show identifying protocol and collecting packets into a protocol sorted list; selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session.
- b. Barnett shows (claim 10) wherein the object store module comprises a content store to store the objects and a tag store to index the objects stored in the object store (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information) in an analogous art for the purpose of data collection, data analysis, and model generation for the performance analysis of enterprise applications.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Barnett's functions of using tags in support of performance analysis.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65) and Barnett (column 7, lines 35-45)'s teaching.

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- e. Regarding claim 11, Barnett shows wherein the content store comprises a canonical storage, and the tag store comprises a database (column 12, lines 4-12: canonical form for abstract module, sources supply lines information form text file, binary file or database; column 13, lines 26-48: data consists of network traces consisting of arrays mutated into hash tables to be addresses by column header vs. row and column locations).

Together Rowley and Barnett disclosed all limitations of claims 10-11. Claims 10-11 are rejected under 35 U.S.C. 103(a).

- 6. Claims 12-14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley in view of Barnett.

- a. Rowley shows (claim 12) an method comprising: intercepting data being transmitted on a network (column 3, lines 33-35: a packet capture engine); reconstructing flows of objects being transmitted on the network from the intercepted data (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); classifying the reconstructed objects by content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages); and storing the classified objects (column 4, lines 9-12: packets are sequentially

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read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved). Rowley does not show (claim 12) creating a tag to describe each reconstructed object; storing tags; indexing the stored objects to enable searching of the stored objects via the tags. However, Rowley does show identifying protocol and collecting packets into a protocol sorted list as per IP address and port number to categorize packets (column 4, lines 42-65); selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session, including the directory and file structures (column 7, lines 37-51).

- b. Barnett shows (claim 12) creating a tag to describe each reconstructed object; storing tags; storing tags; indexing the stored objects to enable searching of the stored objects via the tags (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information) in an analogous art for the purpose of data collection, data analysis, and model generation for the performance analysis of enterprise applications.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Barnett's functions of using tags in support of performance analysis.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's

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teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65) and Barnett (column 7, lines 35-45)'s teaching.

- e. Regarding claim 13, Rowley shows wherein reconstructing the objects comprises: sorting the intercepted data into packets; and sorting the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
- f. Regarding claim 14, Rowley shows further comprising determining whether each object is to be stored based on a set of one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).
- g. Regarding claim 17, Rowley shows an machine-readable storage medium having stored thereon data representing instructions (Fig. 1 and Fig. 2) that, when executed by a processor, cause the processor to perform operations comprising: intercepting data being transmitted on a network (column 3, lines 33-35: a packet capture engine); reconstructing objects being transmitted on the network from the intercepted data (column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content); classifying the reconstructed objects by content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages); and storing the classified

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objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved).

Barnett shows creating a tag to describe each reconstructed object; storing tags; storing tags; indexing the stored objects to enable searching of the stored objects via the tags (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information).

- h. Regarding claim 18, Rowley shows wherein reconstructing the objects comprises: sorting the intercepted data into packets; and sorting the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
- i. Regarding claim 19, Rowley shows wherein the instructions further cause the processor to determine whether each object is to be stored based on a set of one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).

Together Rowley and Barnett disclosed all limitations of claims 12-14 and 17-19.

Claims 12-14 and 17-19 are rejected under 35 U.S.C. 103(a).

- 7. Claims 15-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley, Barnett and further in view of Saulpaugh.

- a. Rowley and Barnett show claims 12 and 17 as above. Neither Rowley nor Barnett shows (claim 15) further comprising receiving a query over the stored objects and (claim 16) further comprising searching the indexed objects, and retrieving objects matching the query. However, as per claim 10 rejection Barnett does show that user selects based on tags.
- b. Saulpaugh shows (column 27, lines 10-29) query for a message response; (column 41, line 60-column 42, lines 10) database query based upon name or strings; and (column 48, lines 33-52) query results cache in an analogous art for the purpose of efficient construction of message endpoints.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Barnett's functions of using tags in support of performance analysis and Saulpaugh's functions of message query based on name or string.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's teaching and have data selection or query based on name or string as per Saulpaugh's teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65) and Barnett (column 7, lines 35-45)'s teaching.
- e. Regarding claim 20, Saulpaugh shows wherein the instructions further cause the processor to receive a query over the stored objects, search the indexed objects in response to the query, and retrieve objects matching the query

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(column 27, lines 10-29: query for a message response; column 41, line 60-
column 42, lines 10: database query based upon name or strings; column 48,
lines 33-52: query results cache).

Together Rowley, Barnett and Saulpaugh disclosed all limitations of claims 15-16
and 20. Claims 15-16 and 20 are rejected under 35 U.S.C. 103(a).

Response to Arguments

8. Applicant's arguments filed on 06/26/2008 have been fully considered, but they are not persuasive.
- a. Applicant argued (3rd paragraph on page 8 of current amendment) that Rowley does not describe any module to "determine a type of content of the reconstructed objects." Rowley has shown (column 4, lines 63-65) determine the type of packets and categorize packets in the list; and (column 6, lines 6-11) packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages. Rowley has further shown (column 6, lines 38-65) that the a multi-packet recompilation module will create directories similar to ones on a remote server for local cache to store files including graphic files, text files and video files. Thus Rowley has taught and/or suggested the argued limitation.
 - b. Applicant argued (2nd paragraph on page 9 of current amendment) that Barnett does not disclose the limitation of "indexing the stored objects to enable searching of the stored objects". Barnett has shown (column 10, lines 52-61) tags and other columns support transaction recognition, pointer to original sources of data for traceability, and color coding tags for display purpose; and (column 22, lines 18-37) tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information). These seem to read upon applicant's description on "tag" in paragraph 32 of applicant's specification. Barnett has further shown (column 19, line 58 through column 10, line 40) hashing network data; and (column 12, lines 13-

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40) filtering with a protocol tag; using filters based on criteria, report writers, or data modifiers. Barnett seems to indicate setting up some relational database for searching particular network trace data based upon some ‘tags’ or ‘other column annotations’. In addition, Rowley does show selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session, including the directory and file structures (column 7, lines 37-51). Thus Barnett and/or Rowley have the argued limitation.

- c. Applicant has amended the independent claims 12 and 17 with addition limitation of “reconstructing flows of objects being transmitted on the network from the intercepted data”, “creating a tag to describe each reconstructed object”, “storing the classified objects and tags” and “indexing the stored objects to enable searching of the stored objects via the tags”. Examiner has reviewed the limitations with respect to the whole claim language and in light of applicant’s original specification and claim set. Examiner has reviewed the claim rejections and applied prior arts as per office action mailed 03/17/2008. It seems that Rowley and Barnett do have the limitations. Claim 12 and 17 rejections are updated as above.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peling A Shaw/
Examiner, Art Unit 2444